Dairy Situation

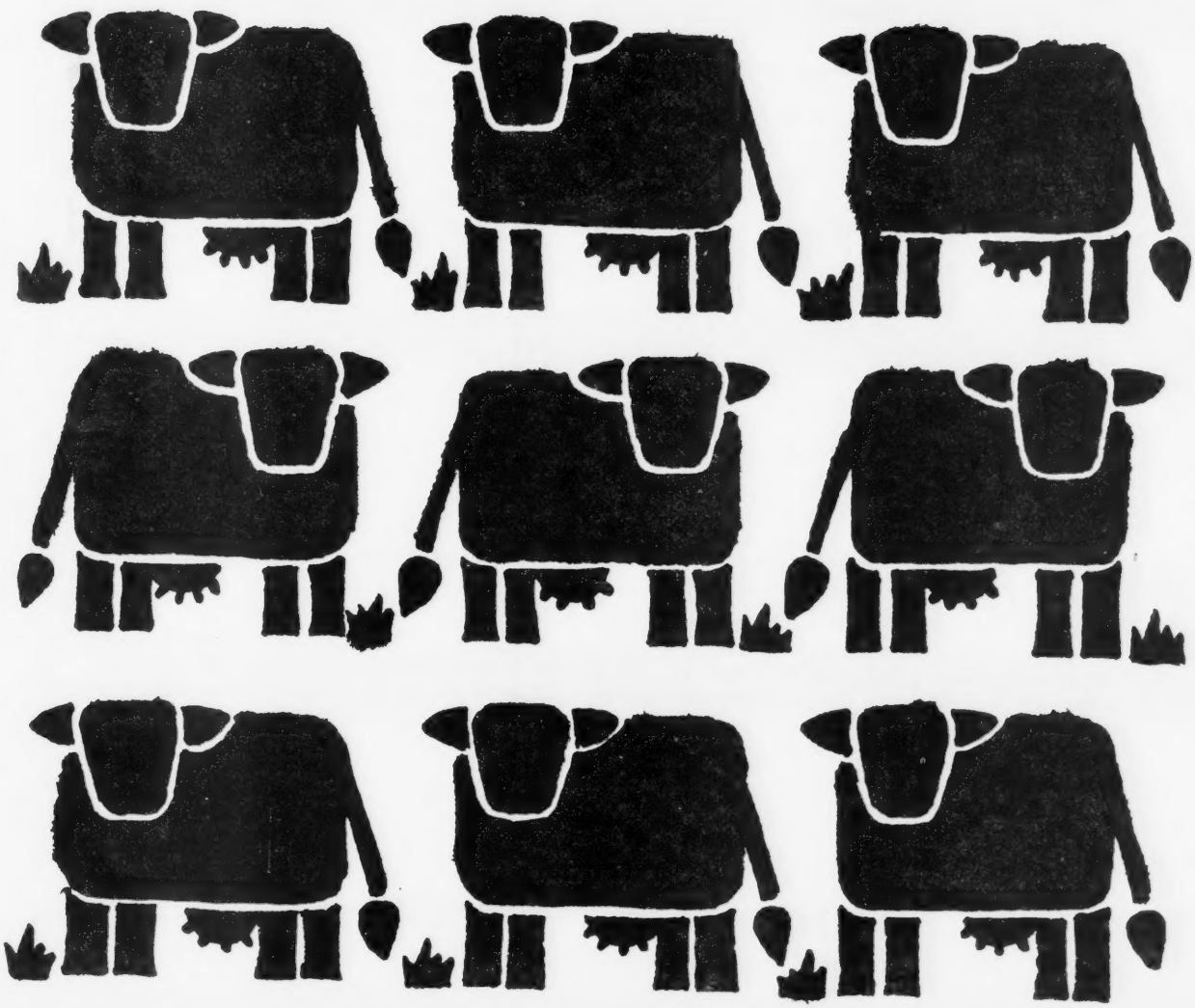
Economics, Statistics, and Cooperatives Service

U.S. Department of Agriculture

Approved by the World Food and Agricultural Outlook and Situation Board

DS-375

MAY 1979



U.S. Milk Production by Months

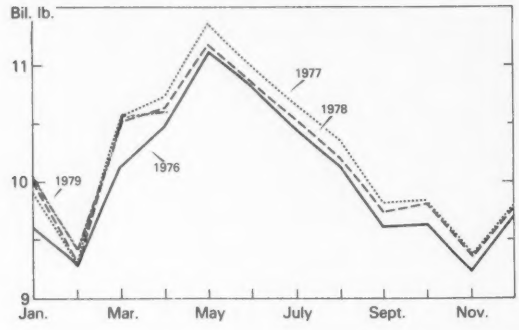


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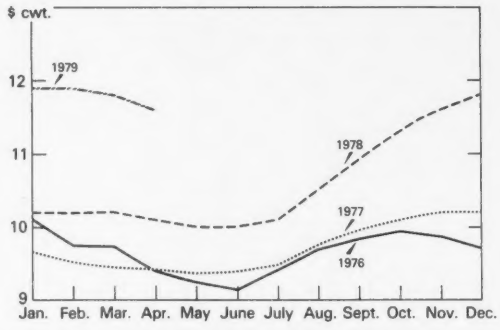
Figure 1

Milk Prices*



*U.S. average price received by farmers for deliveries to plants and dealers.

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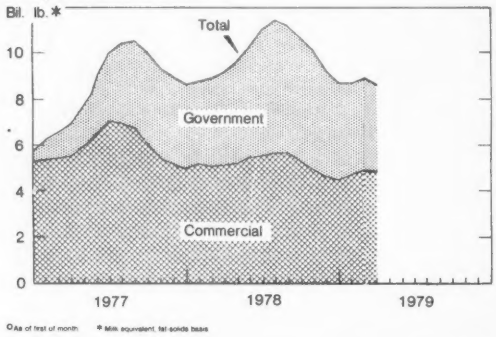
Figure 2

Dairy Product Stocks○



○As of first of month. *Milk equivalent, fat-solids basis

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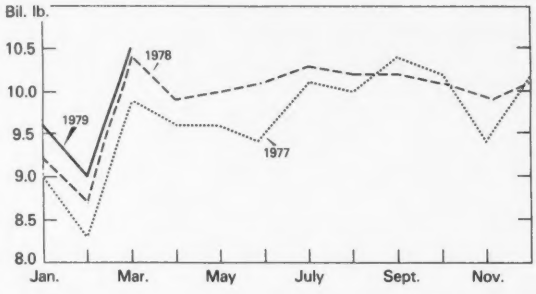
Figure 3

Commercial Disappearance of Milk in All Products*



*Milk equivalent.

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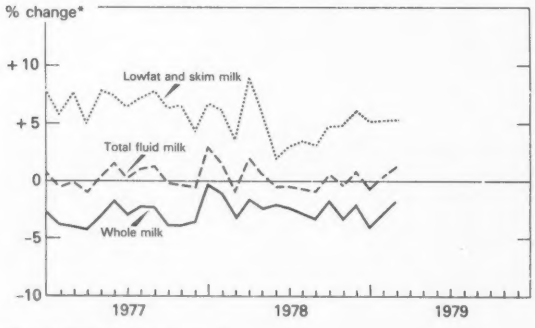
Figure 4

Daily Average Sales of Fluid Milk Items



*From year earlier, adjusted for calendar composition.

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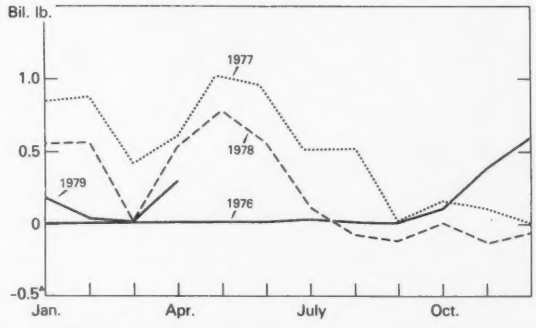
Figure 5

USDA Dairy Product Purchases*



*Net removals, milk equivalent, fat solids basis.
△Negative figures denote domestic sales exceeded purchases.

USDA Neg. ESCS 8449-79(5)

Figure 6

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Approved by the World Food and Agriculture Outlook and Situation Board.

SUMMARY

Supplies of milk and dairy products have remained in fairly close balance with use thus far in 1979. Milk output has been close to a year earlier, while commercial use has continued last year's strong expansion. Light seasonal purchases under the price support program were made after the April 1 adjustment brought the support price up to the first-quarter market prices.

During the rest of 1979, milk output probably will remain near 1978 levels, while growth in commercial use is expected to slow. Surplus removals probably will be small, especially since this spring's seasonal rebuilding of commercial stocks likely will absorb more than typical quantities. Prices are expected to remain near support levels this spring and to move above this summer. But the second-half seasonal rise probably will not exceed last year's increase—if the spring rebuilding of commercial stocks is as large as expected.

Milk production in April was barely smaller than a year earlier, after a first-quarter rise of about one-half percent. Milk cow numbers have

The *Dairy Situation* is published in March, May, July, October, and December.

dropped sharply since the start of 1979. In April, the number of milk cows was down almost 1 percent from January and from a year earlier. Year-to-year gains in output per cow were still modest.

For the rest of 1979, milk prices will stay well above last year and milk-feed price relationships probably still will be quite favorable. But this production stimulus may be offset by cull cow prices remaining far higher than a year earlier. Milk production in 1979 could total within 1 percent of the 122 billion pounds of 1978.

With manufacturing grade milk prices slightly above the new support price, farmers received an average $11.60 per 100 pounds of all milk in April, 15 percent higher than a year earlier. Under expected conditions, farm milk prices probably will average 14 to 16 percent higher this year.

During the first 4 months of 1979, cash receipts from dairying were up a sixth from a year earlier, surpassing the rise in production costs. Net income to dairy enterprises probably will remain relatively good during the rest of 1979, and this year's cash receipts could exceed $14½ billion. Higher milk prices brought 1978 cash receipts to $12.7 billion, up 8 percent from the previous year.

Wholesale prices of butter, nonfat dry milk, and barrel cheese rested lightly on support purchase prices in mid-May. Prices of American cheese in 40-pound blocks were slightly above the support purchase price.

Rises in retail milk and dairy product prices probably will continue to slow this spring, following substantial increases since mid-1978. For all of 1979, retail dairy prices are expected to average 10 to 13 percent higher than last year.

Diversion of milk from butter-powder operations to American cheese plants had slowed greatly by April, as output of both products was close to the levels of the past 2 years. After a January-March decline of about 2 percent, supplies of milk available for manufacturing will move close to a year ago if milk production holds.

Although total commercial use posted an almost 3-percent gain from a year earlier during January-March, the picture for individual products was quite mixed. Commercial disappearance of butter was very strong, other-than-American cheese use was slightly larger than January-March 1978, but American cheese and nonfat dry milk use was down.

Commercial stocks of dairy products were still relatively small on April 1. Milkfat holdings were below the small year-earlier level but stocks of milk solids-not-fat were a little higher.

During January-April, CCC purchased about 25 million pounds of butter and 26 million pounds of nonfat dry milk under the price support program. The half billion pounds milk equivalent was only a third of the year-earlier surplus.

Cheese imports during the first quarter were down sharply from a year earlier, largely because of the early January expiration of the authority to waive countervailing duties. Commercial exports were larger than a year earlier but food-aid exports of nonfat dry milk slipped. Shipments to U.S. Territories were similar to a year earlier.

Early 1979 milk output in the European Community continued to expand briskly. Butter intervention stocks were almost double a year earlier but nonfat dry milk stocks were the lowest in 4 years. New Zealand experienced a repeat of the drought that caused milk output to plummet a year ago.

DAIRY SITUATION

SITUATION AND OUTLOOK

PRODUCTION

Milk Output Stable

Milk production during the first 4 months of 1979 ran close to a year earlier and showed no clear evidence of either an expansion or contraction. Output in April was barely smaller than a year earlier, after an average gain of about one-half percent during the first quarter. Since last September, milk production has remained within 1 percent of a year earlier.

Output per cow responded somewhat to the quite favorable milk-feed price relationships, running between one-half and 2 percent above a year earlier during January-April. However, this expansion was modest in light of either historic trends or the record-best feeding relationships for those months. On April 1, farmers reported feeding 5 percent more grain and other concentrates than a year earlier, following a similar boost on January 1.

U.S. milk production

Month	1978	1979	Change
	Million pounds		*Percent*
January	9,994	10,035	+0.4
February	9,287	9,379	+1.0
March	10,523	10,555	+.3
April	10,631	10,609	-.2
May	11,178		
June	10,851		
July	10,534		
August	10,213		
September	9,733		
October	9,832		
November	9,364		
December	9,788		
Total	121,928		

The generally cool, wet spring might have had an impact, as pasture growth was retarded and farmers may have delayed moving cows onto pasture. Even so, the influence on the year-to-year comparisons probably was smaller than normally expected since the spring of 1978 also was late.

Milk cow numbers have dropped sharply since the start of the year. In April, the number of milk cows was down almost 1 percent from January and from a year earlier. Utility cow prices in Omaha hit $60 per 100 pounds during April, more than double the level of 2 years earlier. These very sharp increases in slaughter cow prices, combined with even sharper rises in prices of replacement heifers, probably have played a major part in the recent large declines in milk cow numbers.

Utility cow prices, Omaha

Month	1977	1978	1979
	Dollars per cwt.		
January	22.95	27.59	47.33
February	23.88	29.45	50.81
March	26.67	32.44	52.94
April	27.63	36.94	57.00
May	26.57	39.21	
June	25.64	37.61	
July	25.23	38.09	
August	25.38	37.85	
September	26.12	39.75	
October	24.89	40.46	
November	23.80	39.30	
December	25.02	41.85	
Average	25.32	36.71	

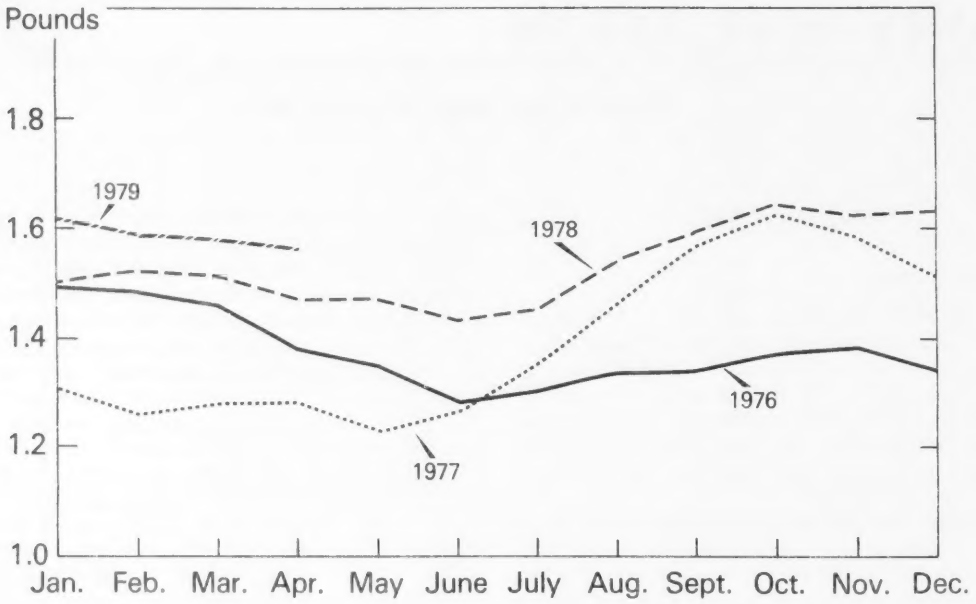
In March-April, only about a third of the 33 States that report monthly milk output showed as large or larger production than a year earlier. However, this group contained all of the 5 major dairy States except Minnesota. Regionally, a substantial increase was reported in the Northeast and Pacific region; slight rises in the Lake States and Mountain regions; substantial declines in the Delta States and Northern Plains; and slight declines elsewhere.

Production Expected To Be Steady

Uncertainty reflected in the January-April production data clouds the outlook for the rest of 1979. However, generally favorable price and income conditions are expected to offset higher cow prices and hold milk output near a year earlier during the remainder of the year.

Farm milk prices will remain well above a year earlier, although increases during the second half may be slightly smaller than the 15-percent average rise expected during the first half of 1979. This

Milk-Feed Price Ratio*



*Pound of 16% protein ration equal in value to one pound of milk sold to plants and dealers.

USDA

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Figure 7

Table 1—Milk-feed price relationships, 1965-78

Year	All milk sold to plants	Ration value	Milk-feed ratio	Milk-feed difference	Returns over concentrate cost
	Dol. per cwt.	*Dol. per cwt.*	*Pounds*	*Dol. per cwt.*	*Dol. per cwt. of milk*
1965	4.23	3.03	1.40	1.20	3.12
1966	4.81	3.15	1.53	1.66	3.65
1967	5.02	3.23	1.56	1.79	3.78
1968	5.24	3.10	1.70	2.14	4.03
1969	5.49	3.15	1.75	2.34	4.21
1970	5.71	3.28	1.74	2.43	4.32
1971	5.87	3.44	1.71	2.43	4.41
1972	6.07	3.52	1.73	2.55	4.60
1973	7.14	4.88	1.46	2.26	5.02
1974	8.33	6.23	1.34	2.10	5.68
1975	8.75	6.25	1.40	2.50	6.12
1976	9.66	6.31	1.53	3.35	7.03
1977	9.72	6.20	1.57	3.52	7.11
1978	10.58	6.07	1.75	4.51	7.98

year's increase likely will surpass the rise in milk production costs and the general level of inflation.

Feed prices have also been higher than last year, but only about half as much as milk prices. Although feed prices for the second half of 1979 are still very uncertain, milk-feed price relationships probably will continue favorable—leading to further increases in concentrate feeding and some growth in output per cow. However, last year's restraint in increasing grain feeding may indicate that favorable milk-feed price relationships do not result in as large an increase in concentrate feeding as in earlier years.

Prices of slaughter cows and dairy replacements have been very high and probably will remain so during the rest of the year. These cow prices make it an attractive exit time for farmers who have been considering leaving dairying—both in terms of the value of their herds and the alternative of beef cow-calf operations. The impact on dairy operations which plan to continue probably is smaller, but high cow prices likely result in some heavier culling of marginal cows. In addition, the difference in the cost of replacement cows and the salvage value has widened—adding to milk production costs. The amount of milk needed to equal the value of a milk cow is far greater than the previous record.

The large replacement herd helped to modify the impact on cow numbers of these high cow prices. Even so, the January 1 ratio of replacement heifers to milk cows was not substantially different from the levels of the preceding 4 years.

Overall, milk production probably will continue close to 1978 levels during the rest of the year. The year-to-year decline in milk cow numbers probably will at least match last year's rate. However, some flattening (or even a slight reversal) of the month-to-month drops is possible during the second half, as heifers are brought into the herd to replace cows culled earlier than normal. With expected heavier feeding, output per cow probably will post a slightly larger gain than in 1978. The inherent uncertainty would indicate, however, that total milk output in 1979 could range from a decline of 1 percent to an increase of 1 percent.

Feed Prices Higher

Feed prices have been significantly higher than both a year earlier and early last fall. In April, farmers paid an average $149 per ton for 16-percent dairy ration, up 9 percent from a year earlier. Prices of major feed ingredients did not rise as much from a year ago, with corn prices about the same and soybean meal prices only about $10 per ton higher. However, prices of both corn and soybean meal were significantly above the levels of last fall. Unlike prices of concentrate feeds, alfalfa hay prices in April were about $1 per ton lower than a year earlier.

It is still too early to have much indication of feed supplies and prices for the next marketing year. Farmers reported on April 1 that they intended to plant 1 percent fewer acres to corn than a year ago (3 percent fewer acres of all feed grains). Intended acres of soybeans were 7 percent larger than 1978 plantings. With the expected low ending stocks of soybeans and the partial isolation of a large part of the corn supplies in the farmer-held reserve, feed prices this summer could be fairly responsive to changes in crop prospects and demand.

In April, the milk-feed price ratio (now based on the price of 16-percent dairy ration) stood at almost 1.6, up from 1.5 a year earlier (figure 7) and a record for the month. This marked the fifth straight month of such records. The average value of concentrate ration fed on April 1 was $6.51 per 100 pounds.

In 1978, the value of concentrates fed per 100 pounds of milk produced was $2.60, virtually unchanged from 1977 as a larger quantity offset lower prices. However, the sharply higher farm milk prices brought returns over concentrate costs to $7.98 per 100 pounds of milk, 12 percent higher than the previous year (table 1). A pound of milk was equal in value to 1.75 pounds of concentrate ration or 1.53 pounds of 16-percent commercial mixed feed, close to the 1969 record and considerably higher than the previous year.

An average of 4,806 pounds of grain and other concentrates was fed per milk cow last year, up only 2 percent from 1977. Since 1960, the increase in grain fed per cow was as small or smaller in only 4 years—the 1973-75 period of unfavorable milk-feed price relationships and 1966. The value of concentrates fed was $292 per cow, the same as a year earlier.

1978 Marketings Slipped

Farmers marketed just over 119 billion pounds of milk in 1978, down about a half percent from 1977 but the third largest ever. Last year's milk marketings were about 7 billion pounds larger than in 1975.

Whole milk sold to plants and dealers accounted for more than 96 percent of the 1978 milk output, up from less than 93 percent a decade earlier (table 2). Sales of farm-separated cream, which still took almost 2 percent of milk production 10 years earlier, had almost disappeared. Direct sales to consumers continued to utilize a little more than 1 percent of milk output.

Farm milk use slipped to less than 2.7 billion pounds (just over 2 percent of production) in 1978, a little more than half as large as a decade earlier.

Table 2--Milk used and marketed by farmers, United States, specified years, 1964-78

Year	Milk used on farms where produced				Milk marketed by farmers				Total milk production on farms 1/2/
	Fed to calves 1/	As fluid milk or cream	For farm-churned butter	Total 2/	Sold to plants and dealers: As whole milk	Sold to plants and dealers: As farm-skimmed cream	Sold directly to consumers 3/	Total 2/	
	Billion pounds								
1964	2.2	3.7	0.6	6.5	114.2	4.4	1.9	120.5	127.0
1965	2.1	3.4	.5	6.0	112.7	3.7	1.8	118.2	124.2
1966	2.0	3.1	.4	5.5	109.7	3.0	1.7	114.4	119.9
1967	1.9	2.9	.3	4/5.2	109.4	2.4	1.8	113.6	118.7
1968	1.8	2.6	.2	4.7	108.8	2.0	1.8	112.6	117.2
1969	1.7	2.4	.2	4.3	108.5	1.6	1.7	111.8	116.1
1970	1.7	2.2	.1	4.0	110.0	1.2	1.7	113.0	117.0
1971	1.6	5/2.1	N.A.	3.7	112.2	1.0	1.6	114.8	118.6
1972	1.6	5/1.9	N.A.	3.6	114.0	.8	1.5	116.3	120.0
1973	1.6	5/1.8	N.A.	3.4	109.8	.7	1.5	112.0	115.5
1974	1.6	5/1.7	N.A.	3.3	110.3	.4	1.5	112.3	115.6
1975	1.6	5/1.5	N.A.	3.1	110.4	.3	1.6	112.3	115.3
1976	1.6	5/1.4	N.A.	3.0	115.6	.2	1.5	117.3	120.3
1977	1.5	5/1.3	N.A.	2.8	118.2	.2	1.5	119.9	122.7
1978 6/	1.5	5/1.2	N.A.	2.7	117.6	.1	1.5	119.3	121.9
	As a percentage of total milk production								
	Percent								
1964	1.7	2.9	0.5	5.1	89.9	3.5	1.5	94.9	100.0
1965	1.7	2.7	.4	4.8	90.7	3.0	1.4	95.2	100.0
1966	1.7	2.6	.3	4.6	91.5	2.5	1.4	95.4	100.0
1967	1.6	2.4	.3	4.4	92.2	2.0	1.5	95.7	100.0
1968	1.5	2.2	.2	4.0	92.8	1.7	1.5	96.1	100.0
1969	1.5	2.1	.2	3.7	93.5	1.4	1.5	96.3	100.0
1970	1.5	1.9	.1	3.4	94.0	1.0	1.5	96.6	100.0
1971	1.3	1.8	N.A.	3.1	94.6	.8	1.3	96.8	100.0
1972	1.3	1.6	N.A.	3.0	95.0	.7	1.3	96.9	100.0
1973	1.4	1.6	N.A.	2.9	95.1	.6	1.3	97.0	100.0
1974	1.4	1.5	N.A.	2.9	95.4	.3	1.3	97.1	100.0
1975	1.4	1.3	N.A.	2.7	95.7	.3	1.4	97.4	100.0
1976	1.3	1.2	N.A.	2.5	96.1	.2	1.2	97.5	100.0
1977	1.2	1.1	N.A.	2.3	96.3	.2	1.2	97.7	100.0
1978 6/	1.2	1.0	N.A.	2.2	96.5	.1	1.2	97.9	100.0

1/ Excludes milk sucked by calves.
2/ May not add due to rounding.
3/ By producers who sell only milk from their own herds. Also includes milk produced by institutional herds.
4/ Includes some milk used for other purposes on farms or not utilized.
5/ Includes farm-churned butter.
6/ Preliminary.

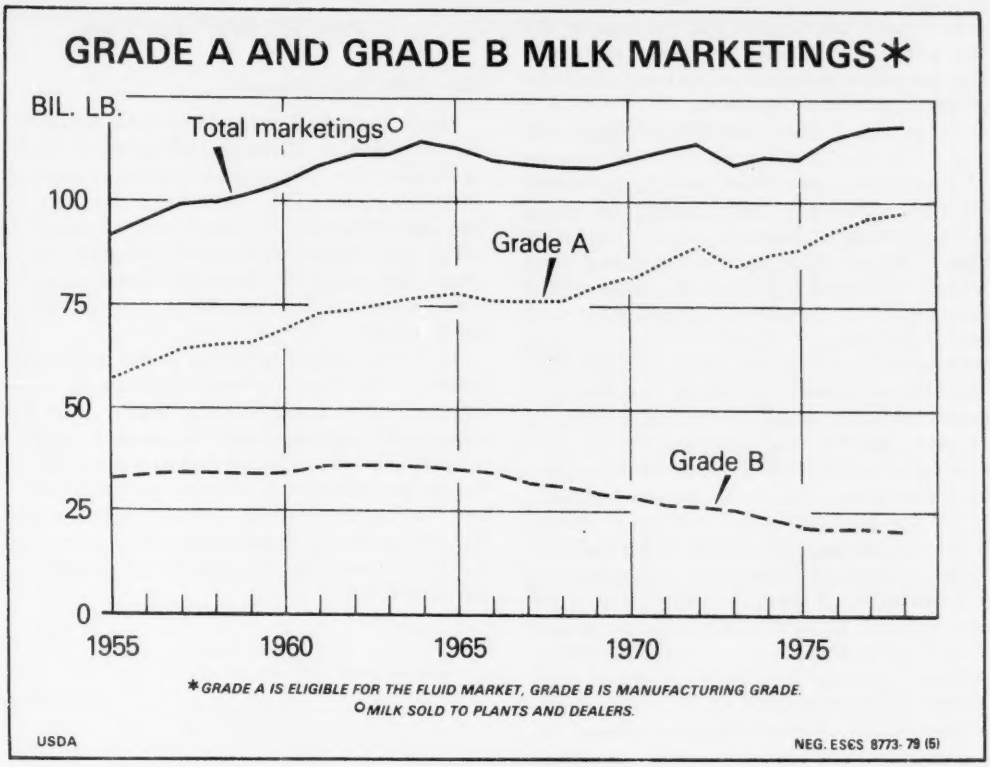


Figure 8

Table 3—Fluid grade milk as percent of all milk sold by farmers to plants and dealers, 1950-78

Year	Atlantic		North Central		South Central	Western	United States
	North	South	West	East			
	Percent						
1950	97	83	37	44	62	59	61
1955	98	87	34	48	67	64	63
1960	99	90	31	55	73	74	67
1965	99	93	28	60	78	82	69
1966	99	94	28	61	80	84	69
1967	99	94	29	60	80	84	70
1968	99	94	31	62	81	84	70
1969	99	95	35	66	83	85	73
1970	99	96	38	68	84	85	74
1971	99	96	41	69	86	85	76
1972	99	96	43	71	86	85	77
1973	99	97	44	71	88	86	77
1974	99	98	46	73	89	88	79
1975	99	98	49	75	89	88	80
1976	99	98	52	75	91	90	81
1977	99	98	54	76	89	91	82
1978	99	98	56	77	90	91	83

[1] Percentage eligible for fluid use (Grade A in most States). Includes fluid grade milk used in manufactured products.

Farm use of milk has diminished because of the shrinking number of families on farms with milk cows, the smaller number of calves, and the increased use of calf milk replacers.

About 83 percent of the milk sold to plants and dealers in 1978 was eligible for the fluid market (Grade A), up from only about two-thirds during the early 1960's (table 3 and figure 8). In recent years, this percentage has grown about 1 percent a year. This relative shift has resulted from the greater exodus of Grade B producers, a more rapid expansion rate of Grade A producers, and conversion of operations to Grade A. Farmers have been encouraged to convert to Grade A production by the difference between Grade A and Grade B milk prices, the narrowing of the difference in sanitary standards, the narrowing in per hundredweight production costs—due to both larger herd size and adoption of cost-saving technology, and the decline in the number of plants handling manufacturing grade milk. Although the shift to Grade A production probably will continue, substantial quantities of manufacturing grade milk will remain for some time. The incentive to produce Grade A milk in preference to Grade B milk is much less dramatic than was the incentive to shift from marketing farm-separated cream to whole milk. The percentage of marketings accounted for by Grade B milk in 1978 was the same as the share of farm-separated cream in 1950. Yet, it was not until 1963 that the share accounted for by farm-separated cream fell under 5 percent of marketings. Even so, the price of manufacturing grade milk in years to come may reach the point where it no longer accurately represents the value of milk for manufacturing.

Manufacturing grade milk marketed

State	1968	1973	1978
	Billion pounds		
Wisconsin	9.5	7.3	6.6
Minnesota	7.6	5.7	4.1
Iowa	3.3	2.2	1.7
Missouri	1.3	1.0	.8
South Dakota	1.2	1.1	1.0
Idaho	1.0	1.1	1.0
Nebraska	.8	.7	.5
California	.8	.9	.5
Kentucky	.9	.6	.5
Illinois	.9	.6	.4
United States	32.6	24.2	20.1

More than three-fifths of the 20 billion pounds of manufacturing grade milk sold last year was in Wisconsin, Minnesota, and Iowa. Although the total quantity of manufacturing grade milk has declined substantially, the proportions by geographic areas have remained fairly constant.

PRICES AND INCOME

Farm Milk Prices Steady

Basic farm milk prices have been fairly stable in recent months. Manufacturing grade milk prices (adjusted for fat test) exhibited relatively little variation during December-April and this stability has been reflected in Class I prices since February. Since the April 1 adjustment brought the support price just slightly above the first-quarter market level, farm milk prices this spring will remain fairly stable.

In April, manufacturing grade milk prices (adjusted for fat test) averaged slightly above the new support price, about a dime higher than the January-March average and 15 percent above a year earlier. For all milk, farmers received an average $11.60 per 100 pounds, down 3 percent from February but up 15 percent from a year earlier. The decline since February reflected seasonally lower solids content and the smaller proportion used in fluid products.

Milk prices received by farmers

Month	All sold to plants			Manufacturing grade		
	1977	1978	1979	1977	1978	1979
	Dollars per 100 pounds					
January	9.65	10.20	11.90	8.48	9.12	10.90
February	9.53	10.20	11.90	8.41	9.18	10.80
March	9.45	10.20	11.80	8.46	9.23	10,80
April	9.44	10.10	11.60	8.66	9.28	10.80
May	9.37	10.00		8.62	9.27	
June	9.40	10.00		8.56	9.23	
July	9.49	10.10		8.56	9.26	
August	9.66	10.50		8.64	9.58	
September	9.97	10.90		8.84	9.92	
October	10.10	11.30		9.02	10.50	
November	10.20	11.60		9.11	10.70	
December	10.20	11.80		9.19	10.90	
Average	9.72	10.58		8.71	9.68	

Minimum Class I prices in Federal order markets will average $12.73 per 100 pounds in June, about the same as February but $1.39 higher than a year ago. Minimum Class I prices likely will stay close to recent levels through early summer.

Cooperatives generally have maintained their announced levels of Class I prices in the past few months, while minimum Federal order Class I prices first decreased and then increased. In February, the estimated average over-order payment was 40 cents per hundredweight. During March and April, the average over-order payment increased to 47 cents as Federal order minimum Class I prices decreased a total of 8 cents per hundredweight. With an 11-cent increase in Federal order Class I

Table 4--Cash receipts from farm marketings of milk and cream, United States, by production regions, 1972-1978 1/

State and region	1972	1973	1974	1975	1976	1977	1978 2/
				Million dollars			
Maine	46.7	50.8	59.3	61.1	66.9	68.0	72.9
New Hampshire	24.9	27.3	30.8	32.0	35.6	36.1	37.8
Vermont	138.9	151.8	176.2	185.1	213.6	212.1	239.9
Massachusetts	47.4	50.6	58.0	59.9	65.9	65.9	67.4
Rhode Island	4.9	5.2	6.0	5.9	6.4	6.1	6.4
Connecticut	48.0	52.0	60.9	60.7	66.7	66.7	70.8
New York	647.2	704.0	811.9	859.6	987.4	981.2	1,085.6
New Jersey	44.0	45.7	49.4	48.8	56.6	56.4	59.2
Pennsylvania	473.0	525.7	620.5	662.2	779.6	808.8	877.7
Delaware	9.1	9.9	11.4	11.8	13.8	14.2	14.3
Maryland	104.9	113.9	133.6	140.7	157.3	161.6	171.7
NORTHEAST	1,589.0	1,736.9	2,018.0	2,127.8	2,449.8	2,477.1	2,703.7
Michigan	299.5	325.4	353.9	376.3	447.8	452.3	496.7
Wisconsin	1,035.1	1,201.3	1,394.4	1,500.5	1,810.4	1,890.4	2,127.6
Minnesota	479.2	570.5	666.7	675.3	785.1	817.0	880.3
LAKE STATES	1,813.8	2,097.2	2,415.0	2,552.1	3,043.3	3,159.7	3,504.6
Ohio	282.5	309.0	355.8	372.0	436.8	428.2	449.0
Indiana	146.7	163.1	186.5	188.1	217.3	222.8	229.9
Illinois	162.1	179.1	197.1	199.1	228.5	234.2	246.4
Iowa	224.9	262.2	290.2	304.2	345.0	353.5	395.5
Missouri	165.1	195.6	227.4	227.2	266.6	267.2	277.6
CORN BELT	981.3	1,109.0	1,257.0	1,290.6	1,494.2	1,505.9	1,598.4
North Dakota	43.2	57.3	62.7	62.9	75.5	77.1	83.3
South Dakota	78.7	97.4	111.9	111.9	138.2	141.9	150.6
Nebraska	82.3	95.6	106.7	109.3	123.4	118.3	125.0
Kansas	95.5	102.3	111.1	119.3	133.0	136.4	146.3
NORTHERN PLAINS	299.7	352.6	392.4	403.4	470.1	473.7	505.2
Virginia	112.9	125.7	151.9	162.3	187.3	191.4	204.3
West Virginia	21.2	23.7	28.3	29.8	33.8	31.5	35.5
North Carolina	103.8	118.9	139.1	149.4	161.9	166.8	173.0
Kentucky	138.7	149.2	178.8	184.3	212.9	217.9	225.0
Tennessee	127.2	141.2	162.6	168.8	193.8	203.5	216.3
APPALACHIAN	503.8	558.7	660.7	694.6	789.7	811.1	854.1
South Carolina	37.1	42.1	52.0	52.8	57.3	58.5	59.9
Georgia	86.8	96.0	116.5	115.4	135.2	134.3	146.5
Florida	149.5	172.1	211.4	222.8	240.2	242.9	247.3
Alabama	57.3	64.3	68.8	69.6	72.2	72.6	75.1
SOUTHEAST	330.7	374.5	448.7	460.6	504.9	508.3	528.8
Mississippi	63.9	70.9	79.9	80.6	86.2	85.7	91.3
Arkansas	43.6	49.2	58.6	58.7	68.3	69.8	75.9
Louisiana	79.0	85.9	102.8	106.4	117.3	114.5	120.3
DELTA STATES	186.5	206.0	241.3	245.7	271.8	270.0	287.5
Oklahoma	73.9	85.0	100.4	93.4	106.4	109.5	118.0
Texas	235.4	263.7	305.8	299.3	346.9	358.4	398.2
SOUTHERN PLAINS	309.3	348.7	406.2	392.7	453.3	467.9	516.2
Montana	17.8	19.1	22.6	22.2	23.7	27.1	29.8
Idaho	82.9	100.1	112.5	123.2	137.2	140.7	158.2
Wyoming	7.8	8.6	9.6	8.9	10.4	11.5	11.8
Colorado	59.2	65.5	76.1	75.4	85.6	86.7	96.3
New Mexico	26.0	27.7	33.5	37.1	44.4	47.0	52.7
Arizona	44.9	60.6	73.7	78.0	89.9	94.2	101.2
Utah	51.4	60.3	75.0	77.9	87.8	87.6	96.3
Nevada	8.5	9.8	14.0	14.5	17.7	18.9	19.1
MOUNTAIN	298.5	351.7	417.0	437.2	496.7	513.7	565.4
Washington	144.8	170.5	195.4	208.3	240.1	252.5	289.1
Oregon	63.0	72.6	84.8	88.6	101.0	103.6	114.6
California	608.1	693.0	894.3	997.2	1,089.1	1,182.5	1,229.0
PACIFIC	815.9	936.1	1,174.5	1,294.1	1,430.2	1,538.6	1,632.7
Alaska	2.0	2.1	2.4	2.7	2.7	2.8	2.5
Hawaii	14.5	16.5	19.4	20.5	21.9	23.2	23.7
UNITED STATES	7,145.3	8,090.0	9,453.6	9,922.5	11,428.6	11,751.7	12,722.4

1/ Totals may not add due to rounding.
2/ Preliminary.

minimums during May and June, the average over-order payment can be expected to drop to near the 40-cent level.

Manufacturing grade milk prices this spring probably will remain near the support price. This will result in all milk prices averaging 14 or 15 percent higher than a year ago.

Farm milk prices are expected to move above support levels this summer. The amount of seasonal strengthening in milk prices during the second half of the year will depend heavily on the strength in milk output, the demand for dairy products, the support price for milk, and the CCC purchase and sell-back prices set on October 1. In addition, commercial stocks may be especially important this year. If substantial quantities of dairy products are held in commercial stocks in lieu of sales to USDA, prices will move above support prices earlier this summer but the total seasonal rise will be diminished.

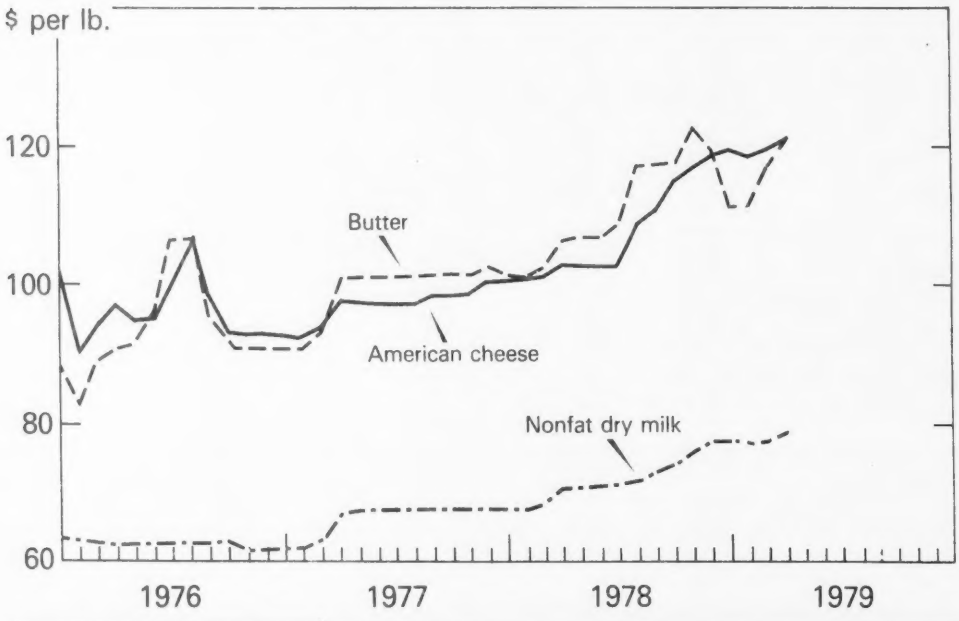
With milk output and commercial use expected to be close to a year earlier and considerable spring buildup in industry inventories, the seasonal rise in milk prices probably will not exceed the substantial 1978 rate. After the rises already posted, this would result in a 1979 average 14 to 16 percent higher than the $10.58 in 1978. However, slight deviations from the expected conditions could result in a larger seasonal rise.

Support Price Adjusted

Effective April 1, the support price for manufacturing grade milk was increased 87 cents to $10.51 per 100 pounds of milk containing 3.5 percent milkfat ($10.76 at annual average fat test). This adjustment resulted from the 9-percent rise in the parity index since the start of the marketing year. Under the provisions of the Food and Agriculture Act of 1977, the milk support price must be adjusted semiannually to reflect the estimated change in the index of prices paid by farmers for commodities and services, interest, taxes, and wage rates. This adjustment provision extends through March 31, 1981.

In order to carry out the new support level, CCC increased the support purchase price for butter 10½ cents per pound to $1.24 in New York ($1.218 in Chicago). Nonfat dry milk prices were raised 5¼ cents per pound to $0.79 for nonfortified powder and $0.805 for fortified product. Support purchase prices for cheese were increased a dime to $1.16 for

Wholesale Dairy Product Prices



USDA

Neg. ESCS 39-79(5)

Figure 9

blocks and $1.13 for barrel cheese. Cheese prices were raised more than butter-powder prices to offset the expected lower value of nonfat whey solids.

In addition, the sell-back levels were lowered from 110 percent of the current purchase price to 105 percent. The sell-back price for a product bought under the price support program is the price at which CCC will sell for unrestricted use. This change in sell-back policy will lessen potential price increases for butter and nonfat dry milk and, by increasing commercial supplies of dairy products in the short season, would indirectly constrain potential price rises for American cheese—even though USDA will not have any cheese to sell.

Unless new legislation is enacted, the support price for the new marketing year beginning October 1 can be set between 75 and 90 percent of parity, the range specified in the permanent legislation.

Cash Receipts Much Higher

Cash receipts from dairying during January-April were up a sixth from a year earlier, primarily because of sharply higher milk prices since marketings were only slightly larger. Cash receipts during the rest of 1979 will continue to post strong gains from a year earlier and could exceed $14½ billion this year.

Boosted in part by increases of more than a half in prices paid for feeder livestock, the index of prices paid for production items during the first 4 months of 1979 averaged 14 percent above a year earlier. Since feeder livestock (including milk cow replacements) constitute a relatively minor cost for dairymen, net income to dairy enterprises probably were considerably better than the relatively favorable levels of a year earlier. Net income to dairy enterprises probably will remain good during the rest of 1979 unless feed prices rise sharply.

Last year, higher milk prices easily outweighed the slight dip in marketings to bring cash receipts from farm marketings of milk and cream to $12.7 billion, up 8 percent from 1977 (table 4). Sales of whole milk to plants and dealers contributed about 98 percent of the total cash receipts. Almost all of the remainder came from direct sales to consumers, as receipts from farm-separated cream were negligible. All production regions registered increases in dairy income, ranging from 11 percent in the Lake States to 4 percent in the Southeast.

Wholesale Prices Close to CCC Purchase Prices

Wholesale dairy product prices adjusted to the new support purchase prices rather smoothly (figure 9). By mid-May, prices of butter, nonfat dry milk, and American cheese in barrels were close to support purchase levels, while prices of cheese in 40-pound blocks remained slightly above. Although the support prices were the primary factors in the early spring price levels, wholesale prices exhibited more buoyancy than would be typical in a substantial surplus situation.

Wholesale dairy product prices are unlikely to move higher until after the seasonal peak in milk production and American cheese prices might even slip slightly. However, prices are expected to start upward as early as June or as late as midsummer, depending on current and prospective market conditions.

In mid-May, edible dry whey prices were quoted at 10½ cents per pound (nonhygroscopic, Central States area), down about a penny from a year ago. Although production of edible whey products has been close to a year earlier, larger stocks have kept prices low. The casein market has been very tight with practically no spot trading.

In mid-May, evaporated milk prices stood at about $17.50 per case, up slightly from last winter and 9 percent from a year earlier. Wholesale ice cream prices in April were a tenth higher than last year.

The wholesale dairy price index, as reported by the Bureau of Labor Statistics, stood at 207.0 (1967=100) in April, up 2 percent since December and about 12 percent above a year earlier. This index likely will be fairly stable until early summer.

Retail Price Rises To Slow

Rises in retail milk and dairy product prices this spring probably will continue to slow as farm and wholesale prices stabilize. Later in the year, retail dairy prices will increase at a substantial seasonal rate. For the year as a whole, retail dairy prices are expected to average 10 to 13 percent higher than last year.

The BLS index stood at 201.5 (1967=100) in March, up about 2½ percent since December and more than 12 percent from a year earlier. The year-to-year increase in dairy prices was just under the rise in all food prices but somewhat larger than the increase in all retail prices (figure 10).

This winter, increases in retail prices of both fluid milk and manufactured products slowed considerably from the rapid pace of last fall. Even so, the winter rises were significant since retail dairy prices typically are fairly stable during the winter.

The farm-retail spread for dairy products during the first quarter was about 8 percent larger than a year earlier, roughly half as large as the rise in farm value. Although not out of line with the general inflation rate, this widening was considerably brisker than during the preceding 2 years.

Retail Food And Dairy Product Prices

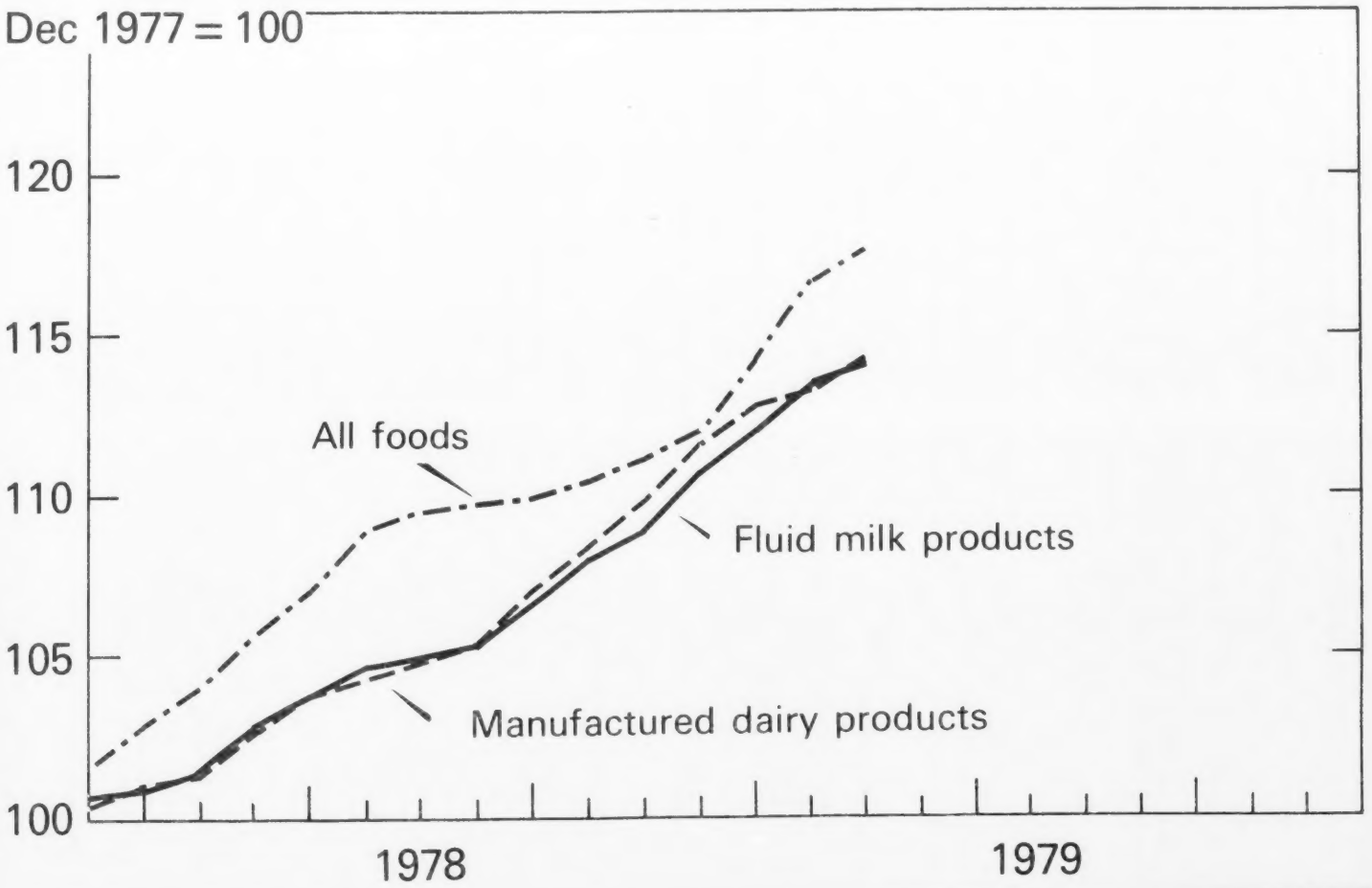


Figure 10

USDA

Neg. ESCS 38-79 (5)

Retail dairy product prices

Item	Index base	Mar. 1978	June 1978	Dec. 1978	Mar. 1979
Consumer Price Index[1]	1967=100	189.8	195.3	202.9	209.1
All food[1]	1967=100	204.2	213.8	219.4	230.4
All dairy products[1]	1967=100	179.3	184.8	196.4	201.5
Fluid milk and cream	12/77=100	101.4	104.6	110.6	113.8
Whole milk	1967=100	166.3	171.4	181.2	186.5
Other	12/77=100	100.7	104.2	110.4	113.6
Manufactured dairy products	12/77=100	101.3	104.3	111.5	114.0
Butter	1967=100	170.3	175.8	195.4	194.5
Cheese	12/77=100	101.3	104.0	111.7	114.6
Frozen desserts	12/77=100	100.9	104.9	109.9	113.4
Other	12/77=100	102.1	103.8	109.3	111.0

[1] For all urban consumers starting January 1978.

UTILIZATION

Diversion to Cheese Production Slows

During January-February, American cheese output was well above a year earlier while butter output was down substantially. However, this diversion started to slow in March, and April output of both products was close to a year ago. Although American cheese plants may have had a slight wholesale price advantage over butter-powder operations during March-April, the sluggish commercial use probably has deterred cheese producers from boosting cheese production more than was needed for a modest rebuilding of stocks.

Production of selected manufactured dairy products, 1977-78

Item	January-March		Change from year earlier	
	1978	1979[1]	1978	1979[1]
	Million pounds		*Percent*	
Butter	301.7	273.4	+0.8	-9.4
Cheese:				
American	500.8	525.1	-2.1	+4.9
Other	345.7	362.8	+12.8	+4.9
Cottage, creamed	217.1	214.4	-.8	-1.2
Canned milk	175.5	177.8	-11.3	+1.3
Dry whole milk	18.4	21.0	-8.9	+14.1
Ice cream (Mil. gal.)	179.7	184.4	+.1	+2.6
Milk equivalent[2]	16,362	16,049	+.6	-1.9
Nonfat dry milk	234.8	186.1	+2.1	-20.7

[1] Preliminary. [2] Total all reported manufactured products.

Larger sales of other varieties have drawn more milk into production of these types. Other-than-American cheese output was up nearly 5 percent from a year ago during January-March.

Nonfat dry milk production has remained well below year-earlier levels, with first-quarter output down a fifth. However, production progressively moved closer to a year earlier throughout the quarter.

If milk production holds as expected, cheese output in coming months may run above last year's levels. Increased sales and the demand for cheese to further rebuild stocks will be important. Butter-powder production in coming months may be below a year ago, depending on the strength of milk output and expansion of American cheese production.

Among other products, January-March production of dry whole milk was substantially above last year, while production of canned milk and ice cream was slightly larger. Output of whey products was up slightly, despite low prices resulting from large stocks.

Wisconsin out-of-state milk shipments

Month	1978		1979	
	Loads	Volume	Loads	Volume
	Number	*Thousand pounds*	*Number*	*Thousand pounds*
January	206	9,682	302	14,194
February	314	14,758	180	8,460
March	239	11,233	64	3,008
April	183	8,601	17	799
May	154	7,238		
June	57	2,679		
July	121	5,687		
August	119	5,593		
September	475	22,325		
October	191	8,977		
November	276	12,972		
December	320	15,040		
Total	2,655	124,785		

The amount of milk used in manufactured products during January-March was about 2 percent lower than last year's heavy levels, even though spot shipments from Wisconsin were much smaller than a year earlier. Milk supplies available for manufacturing in coming months probably will be close to a year earlier, if milk production is as expected.

Manufactured Product Output Eased in 1978

Last year's small decline in milk production resulted in lighter supplies for manufacturing, since fluid use was about steady. The amount of milk used in manufactured dairy products in 1978 slipped to about 66½ billion pounds (milk equivalent, fat solids basis), down one-half percent from the 1977 record.

Table 5--Use of market supply of milk, United States, 1964-78

Year	Fluid use	Butter 1/	Cheese		Creamed cottage cheese	Evaporated and condensed milk 2/	Dry whole milk	Frozen dairy products, net	Other factory products	Total factory products 3/	Miscellaneous 4/	Market supply of milk 5/
			American	Other								
	Billion pounds (milk equivalent)											
1964	54.9	31.2	11.5	4.2	1.0	5.0	0.6	10.3	0.6	64.5	1.1	120.5
1965	55.4	28.5	11.5	4.3	1.0	4.6	.7	10.6	.6	61.8	1.2	118.4
1966	55.4	23.7	12.2	4.5	1.0	4.7	.7	10.5	.6	57.9	2.5	115.9
1967	54.0	26.1	12.7	4.5	1.0	4.0	.5	10.5	.3	59.8	1.2	114.9
1968	53.7	24.9	12.7	4.7	1.1	3.9	.6	11.0	.4	59.2	-.2	112.8
1969	52.8	23.7	12.7	4.9	1.2	3.9	.5	11.0	.4	58.3	1.0	112.1
1970	52.0	23.9	14.2	5.3	1.3	3.3	.5	11.0	.5	60.0	1.5	113.5
1971	51.9	23.9	15.1	5.8	1.3	3.2	.5	11.0	.7	61.6	1.5	115.0
1972	53.2	22.7	16.4	6.4	1.3	3.1	.6	11.0	.8	62.3	1.1	116.7
1973	52.4	18.6	16.8	6.8	1.1	2.9	.6	11.1	.7	58.7	1.9	113.0
1974	50.5	19.3	18.6	7.1	1.0	2.8	.5	11.2	.8	61.3	.7	112.5
1975	51.1	19.9	16.5	7.4	1.0	2.7	.5	11.9	.7	60.5	.8	112.4
1976	51.5	19.4	20.6	8.2	1.0	2.5	.6	11.6	.7	64.7	1.4	117.6
1977	51.4	21.9	20.5	8.4	1.1	2.4	.5	11.5	.7	66.9	1.8	120.1
1978 6/	51.2	19.8	21.1	9.1	1.1	2.3	.5	12.0	.7	66.5	1.8	119.5
	Percentage of total market supply											
	Percent											
1964	45.6	25.9	9.5	3.5	.8	4.2	.5	8.5	.5	53.5	.9	100.0
1965	46.8	24.1	9.7	3.6	.8	3.9	.6	9.0	.5	52.2	1.0	100.0
1966	47.8	20.4	10.5	3.9	.9	4.1	.6	9.1	.5	50.0	2.2	100.0
1967	47.0	22.7	11.1	3.9	.9	3.5	.4	9.1	.3	52.0	1.0	100.0
1968	47.6	22.1	11.3	4.2	1.0	3.5	.5	9.8	.4	52.5	-.2	100.0
1969	47.1	21.1	11.3	4.4	1.1	3.5	.4	9.8	.4	52.0	.9	100.0
1970	45.8	21.1	12.5	4.7	1.1	2.9	.4	9.7	.4	52.9	1.3	100.0
1971	45.1	20.8	13.1	5.0	1.1	2.8	.4	9.6	.6	53.6	1.3	100.0
1972	45.6	19.5	14.1	5.5	1.1	2.7	.5	9.4	.7	53.4	.9	100.0
1973	46.4	16.5	14.9	6.0	1.0	2.6	.5	9.8	.6	51.9	1.7	100.0
1974	44.9	17.2	16.5	6.3	.9	2.5	.4	10.0	.7	54.5	.6	100.0
1975	45.5	17.7	14.7	6.6	.9	2.4	.4	10.6	.6	53.8	.7	100.0
1976	43.8	16.5	17.5	7.0	.9	2.1	.5	9.9	.6	55.0	1.2	100.0
1977	42.7	18.2	17.0	7.0	.9	2.0	.4	9.6	.6	55.6	1.5	100.0
1978 6/	42.8	16.6	17.7	7.6	.9	1.9	.4	10.0	.6	55.6	1.5	100.0

1/ Excludes milk equivalent of whey cream, includes milk equivalent of residual cream from fluid and other uses.
2/ Canned and bulk.
3/ May not add due to rounding.
4/ Minor miscellaneous uses and any inaccuracies of independently determined use items.
5/ Milk marketed by farmers, net imports of ingredients such as frozen cream, butterfat-sugar mixtures and "ice cream", and net change in storage cream.
6/ Preliminary.

Butter-powder production reflected almost all of the decreased supplies of milk for manufacturing (table 5). The milk equivalent of butter output (exclusive of butter produced from whey cream) was down almost a tenth from 1977. While butter used about 19 percent of the market supply of milkfat, nonfat dry milk used only about 10 percent of the supply of milk solids-not-fat.

Cheese output utilized over 1 billion pounds more milk than the previous year, as production of both American cheese and other-than-American varieties increased. Over the past decade, the amount of milk used for cheese increased by more than two-thirds.

In 1978, dry whole milk and frozen desserts utilized more milk, while evaporated and condensed milk used substantially less. The amount of milk used for cottage cheese and miscellaneous products was about unchanged.

Early 1979 Butter Sales Strong

The sharp increase in commercial use of milk and dairy products, which prevailed throughout 1978, continued in early 1979. Although total commercial use posted an almost 3-percent gain from a year earlier during January-March, the picture for different products was quite mixed (tables 6 and 7).

The rise in total dairy sales was led by a jump in butter sales. Commercial disappearance of butter in January-March was up a tenth from last year's brisk sales. With the general economy remaining strong, much of the gain likely resulted from non-retail sales. In addition, apparent use may have been distorted by a swelling of pipeline holdings.

Commercial disappearance of American cheese in January-March was down nearly 3 percent from the strong level of a year ago, while other varieties posted a slight gain. Improved consumer incomes and higher retail meat prices probably combined to partially offset the effect on disappearance of sharply higher cheese prices.

Changes in January-March dairy sales from year earlier

Item	Change
	Percent
Total milk[1]	+2.6
Manufactured products:	
American cheese	-2.9
Other cheese	+1.1
Cottage cheese[2]	-.2
Butter	+10.4
Ice cream	+2.6
Ice milk	+4.1
Canned milk	-.2
Nonfat dry milk	-6.4
Fluid products	+.3
Whole milk	-2.8
Skim and lowfat milk	+5.2
Cream and mixtures	+.8

[1] On a milk equivalent, fat-solids basis. [2] Creamed and low-fat. [3] January-February.

Sales of fluid milk were up slightly. March fluid sales were above a year ago because of the later Easter, while sales in January-February were about the same. Retail milk prices have risen much faster than prices of other beverages, but slightly slower than the price of all foods.

Commercial disappearance of nonfat dry milk was down 6 percent from last year's inflated level. Use of nonfat dry milk appears to have fairly well stabilized, although at levels well below those of a few years ago.

Among other products, sales of ice cream and ice milk were up slightly. Small declines in creamed cottage cheese sales outweighed an increase in lowfat cottage cheese sales. Commercial disappearance of canned milk during the first quarter was unchanged from year-earlier levels.

Gains in commercial use likely will diminish in coming months. Growth in consumer income probably will be slower than last year, and increases in retail dairy prices likely will be similar to rises in other food prices. For the year, significant increases in cheese sales and stable to increasing butter and fluid sales are likely. In total, commercial use of milk and dairy products could be up about 1 percent, although the range of uncertainty is wide. If the general economy turns sour, dairy sales could dip below a year earlier during the second half.

Steady Per Capita Use Expected

Per capita consumption of all dairy products in 1979 (on a milk equivalent, fat solids basis) may be about the same as last year. With USDA donations at about the 1978 levels, increases in commercial use are expected to about match population growth.

Per person use of cheese probably will rise less than 1978's increase of almost a pound. Per capita butter use probably will be about stable. Increased per capita consumption of lowfat milks might offset lower whole milk use; on a milk equivalent, fat solids basis, fluid milk sales probably will continue to decline.

Per capita civilian consumption of milk and dairy products in 1978 totaled 558 pounds milk equivalent, up slighty more than 1 percent from a year earlier (table 8). Stronger commercial use outweighed smaller USDA donations. The average American consumed an average 20.5 pounds of milkfat last year, almost 2 percent more than 1977 and the highest since 1972 (table 9). Greater use of butter and cheese outweighed the decline in milkfat consumed in fluid products. Per person use of milk

Table 6--Commercial disappearance: Total milk, annual and by quarters, 1977-79 1/

Item	1977	1978					1979 2/				
		By quarters				Annual	By quarters				Annual
		1st	2nd	3rd	4th		1st	2nd	3rd	4th	
		Billion pounds									
Production	122.7	29.8	32.7	30.5	29.0	121.9	30.0				
Farm use	2.8	.7	.7	.7	.7	2.7	.7				
Marketings	119.9	29.1	32.0	29.8	28.3	119.2	29.3				
Beginning commercial stocks	5.3	4.9	5.1	5.6	5.3	4.9	4.5				
Imports	2.0	.5	.4	.5	.9	2.3	.4				
Total supply	127.1	34.5	37.5	35.9	34.5	126.4	34.2				
Ending commercial stocks	4.9	5.1	5.6	5.3	4.5	4.5	4.8				
Net removals	6.1	1.2	1.9	-.1	-.2	2.7	.2				
Commercial disappearance Actual	116.1	28.4	30.0	30.7	30.2	119.3	29.1				
Percent change 3/	-.3	+4.4	+4.9	+.6	+1.2	+2.7	+2.6				

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding
2/ Preliminary.
3/ From year earlier using unrounded data.

Table 7--Commercial disappearance: Selected dairy products, United States, annual 1969-78, quarters, 1978-79

Year and quarter	Butter 1/	Cheese		Nonfat dry milk	Canned Milk	Frozen products 3/
		American 2/	Other			
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. gal.
1969	921.9	1,281.0	861.6	1,042.1	1,376.1	1,092.2
1970	898.2	1,398.0	909.1	983.2	1,213.8	1,097.3
1971	847.1	1,454.8	987.0	981.8	1,186.9	1,102.4
1972	885.4	1,595.7	1,127.8	919.2	1,102.6	1,108.6
1973	855.6	1,677.1	1,210.2	1,110.1	1,056.7	1,118.6
1974	929.9	1,780.6	1,276.5	809.9	999.5	1,128.0
1975	951.0	1,717.1	1,331.9	697.0	923.9	1,183.9
1976	919.0	1,920.9	1,458.0	719.2	899.0	1,154.0
1977	859.8	1,958.1	1,512.3	681.6	799.2	1,147.4
1978	908.2	2,084.1	1,633.0	666.8	765.4	1,159.6
1978 - 1st	226.0	530.6	386.7	182.5	194.7	243.7
2nd	217.7	520.7	385.6	134.9	176.6	329.5
3rd	226.1	506.2	398.3	195.8	162.3	345.6
4th	238.4	526.5	462.5	153.7	231.7	240.8
1979 - 1st	249.4	515.4	391.1	170.9	194.4	250.5
2nd						
3rd						
4th						
	1978-79 percent change					
1st	+10.4	-2.9	+1.1	-6.4	-.2	+2.8
2nd						
3rd						
4th						

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine.

solids-not-fat was about 1 percent higher in 1978, due mainly to larger cheese consumption.

Commercial Stocks Lean

Commercial stocks of dairy products on April 1 were still low relative to the level of current and expected sales, although some rebuilding has occurred from the extremely low levels of early winter.

Commercial holdings of American cheese on April 1 were up 9 percent from a year earlier and 4 percent from December 1 levels. The small rebuilding of cheese stocks occurred before the diversion of milk from butter-powder to cheese production slowed. April 1 commercial stocks of other varieties were up nearly a fifth from a year ago.

Dairy product stocks

Item	Apr. 1, 1977	Apr. 1, 1978	Apr. 1, 1979
	Million pounds		
Commercial:			
Butter	44.9	56.7	29.4
American cheese	400.5	333.4	362.5
Other cheese	64.4	65.3	77.1
Nonfat dry milk	78.1	49.8	51.2
Milkfat	192.5	179.2	169.5
Solids-not-fat	234.3	183.0	194.9
Milk equivalent	5,517	5,064	4,848
Government:			
Butter	61.5	179.0	177.9
American cheese	20.9	40.9	7.6
Nonfat dry milk	386.5	612.3	472.8
Milkfat	56.2	157.3	145.7
Solids-not-fat	378.2	601.6	457.1
Milk equivalent	1,476	4,102	3,750

Unlike cheese, stocks of butter in commercial hands were well below a year ago. On April 1, these holdings were only half of last year's level and were the lowest on that date since 1976. The demand for butter to seasonally rebuild stocks probably will be strong in coming months.

Manufacturers' holdings of nonfat dry milk totaled about 51 million pounds on April 1, up only slightly from a year ago. These stocks probably were fairly well in line with commercial needs.

Commercial stocks of milkfat on April 1 were down about 5 percent from a year earlier, while commercial holdings of milk solids-not-fat were up over 6 percent. On a milk equivalent basis, commercial stocks of dairy products totaled 4.8 billion pounds.

Small CCC Purchases Likely

The combination of strong sales, steady milk production, and brisk demand for rebuilding of commercial dairy stocks has resulted in very small CCC purchases under the price support program this year.

During January-April, CCC purchases totaled about 0.5 billion pounds milk equivalent, less than a third of the removals of a year earlier. Reflecting butter sales to the industry during the fourth quarter of 1978, net removals since the start of the marketing year on October 1 were equivalent to only 0.3 billion pounds of milk.

USDA dairy purchases

Item	January-April		
	1978	1979	Change
	Million pounds		*Percent*
Butter	79.2	24.8	-68.7
American cheese	3.1	-.3	---
Nonfat dry milk	91.4	26.3	-71.2
Evaporated milk	6.0	6.2	+3.3
Milk equivalent	1,678	523	-68.9

A few cars of American cheese were purchased under the price support program in early May--the first since August 1978. Total cheese removals this year probably will be smaller than last year's 40 million pounds.

Purchases of butter during January-April came to 25 million pounds, down over two-thirds from last year. Meanwhile, the purchases of 26 million pounds of nonfat dry milk were down over 70 percent from a year ago. Small seasonal purchases of both products continued in early May.

Uncommitted CCC stocks

Item	April 30	
	1978	1979
	Million pounds	
Butter	230.5	163.3
American cheese	34.1	---
Nonfat dry milk	551.1	442.0

CCC uncommitted inventories on May 1 were lower than a year earlier. Butter inventories, at 163 million pounds, were down nearly a third. Nonfat dry milk inventories were down a fifth to 442 million pounds, the lowest in 2 years. CCC held no uncommitted inventories of cheese on May 1.

Table 8--Dairy products: Per capita civilian consumption, selected products, United States, 1955 and 1960-78

Year	Butter	Cheese		Cottage cheese	Evaporated and condensed milk	Dry whole milk	Ice cream	Nonfat dry milk	Fluid products 1/
		American	Other						
					Pounds				
1955	9.0	5.4	2.5	3.9	16.2	0.3	18.0	5.5	348
1960	7.5	5.4	2.9	4.8	13.7	.3	18.3	6.2	322
1961	7.4	5.7	2.9	4.6	13.3	.3	18.0	6.2	312
1962	7.3	6.1	3.1	4.6	12.5	.3	17.9	6.1	308
1963	6.9	6.1	3.1	4.6	11.6	.3	18.0	5.8	307
1964	6.9	6.2	3.2	4.7	11.4	.3	18.3	5.9	304
1965	6.4	6.2	3.4	4.7	10.7	.3	18.5	5.6	302
1966	5.7	6.2	3.6	4.6	9.7	.3	18.2	5.9	297
1967	5.5	6.4	3.7	4.5	9.0	.3	17.8	5.6	285
1968	5.7	6.6	4.0	4.6	8.9	.2	18.4	5.8	280
1969	5.4	6.7	4.2	4.8	7.9	.2	18.0	5.8	272
1970	5.3	7.1	4.4	5.2	7.1	.2	17.7	5.4	264
1971	5.1	7.4	4.7	5.4	6.8	.2	17.5	5.3	260
1972	4.9	7.8	5.4	5.4	6.3	.1	17.4	4.6	263
1973	4.8	8.0	5.7	5.2	6.0	.1	17.5	5.3	257
1974	4.6	8.6	6.0	4.7	5.6	.1	17.5	4.2	246
1975	4.8	8.3	6.2	4.8	5.3	.1	18.7	3.3	246
1976	4.4	9.1	6.8	4.8	5.0	.2	18.1	3.6	246
1977	4.4	9.4	6.9	4.8	4.4	.2	17.7	3.4	243
1978 2/	4.5	9.8	7.4	4.8	4.1	.3	17.8	3.2	239

1/ Milk equivalent (fat solids basis) of whole milk, cream items, lowfat and skim items.
2/ Preliminary.

Table 9--Milk solids in all dairy products: Production and disposition, 1965-78

Year	Production 1/	Sold by farmers	Civilian disposition					
			Consumed on farms where produced 2/	National School Lunch and Special Milk Programs	USDA donations 3/	Other	Total	Per capita
	Million pounds							Pounds
	Milkfat							
1965	4,592	4,371	145	113	132	3,990	4,380	22.9
1966	4,426	4,250	129	117	43	4,014	4,303	22.3
1967	4,377	4,189	116	117	114	3,826	4,173	21.4
1968	4,305	4,129	104	117	151	3,805	4,177	21.2
1969	4,264	4,104	94	119	169	3,778	4,160	20.9
1970	4,284	4,137	80	113	157	3,800	4,150	20.6
1971	4,344	4,207	77	113	169	3,815	4,174	20.4
1972	4,410	4,280	70	111	149	3,923	4,253	20.6
1973	4,225	4,102	65	109	136	3,925	4,235	20.4
1974	4,238	4,121	60	108	54	3,963	4,185	20.0
1975	4,238	4,125	55	106	84	3,994	4,239	20.1
1976	4,406	4,297	51	105	17	4,108	4,281	20.1
1977	4,483	4,379	47	102	109	4,056	4,314	20.1
1978 4/	4,470	4,373	43	100	85	4,198	4,426	20.5
	Milk solids-not-fat							
1965	10,704	9,905	337	275	166	6,997	7,775	40.6
1966	10,324	9,621	301	283	124	7,082	7,790	40.3
1967	10,223	9,594	271	285	130	7,024	7,710	39.5
1968	10,081	9,528	244	288	144	7,145	7,821	39.7
1969	9,985	9,490	221	293	152	7,198	7,864	39.5
1970	10,063	9,626	189	298	153	7,380	8,020	39.8
1971	10,197	9,797	182	300	167	7,486	8,135	39.8
1972	10,334	9,967	165	302	133	7,573	8,173	39.6
1973	9,932	9,592	152	301	69	7,764	8,286	39.8
1974	9,940	9,633	142	301	62	7,505	8,010	38.2
1975	9,930	9,642	130	301	61	7,532	8,024	38.0
1976	10,343	10,070	121	301	32	7,792	8,246	38.7
1977	10,540	10,282	111	301	71	7,750	8,233	38.3
1978 4/	10,486	10,248	100	301	73	7,844	8,318	38.4

1/ Quantities produced and used, estimated by applying the percentage of milkfat and solids-not-fat in each product to the amount of products. 2/ Fluid milk and cream and farm-churned butter. 3/ Butter, cheese, evaporated milk, nonfat dry milk, and dry whole milk. 4/ Preliminary.

FOREIGN DAIRY TRADE AND TRENDS

Cheese Imports Fall

U.S. imports of dairy products in January-March were substantially smaller than a year earlier. The 0.4 billion pounds milk equivalent (fat solids basis) was down more than a fourth, with the largest drops occurring in January-February. Although imports of other dairy products were smaller as well, most of the decline was due to smaller cheese imports (table 10).

The distortion in the cheese imports was because of the uncertain status of the authority to waive countervailing duties. Much of the autumn increase in imports was in anticipation of the expiration of this authority. During the first quarter of 1979, importers worked off the stocks accumulated in the fall. Imports were further constrained by the expectation that waiver authority would be reinstated (as it was in early April). January-March cheese imports were about a third less than a year earlier. Imports of quota types were higher than a year earlier but imports of nonquota types were down sharply.

Effective April 13, the "pricebreak" level was increased a dime to $1.23 per pound. This increase was necessitated by the April 1 increase in the support purchase price for American cheese, since the "pricebreak" is specified as 7 cents above the support purchase price (rounded to the nearest whole cent). Certain cheese types are subject to quotas if the f.o.b. price is less than the "pricebreak," but come in free of quantity restriction if the f.o.b. price is at or above that level.

U.S. dairy trade
(milk equivalent)

Year and quarters	Imports		Exports	Shipments[1]
	Cheese	Other		
	Million pounds			
1978				
1st	379	157	87	168
2nd	337	51	105	156
3rd	484	24	85	145
4th	799	72	91	133
Year[2]	1,999	307	368	602
1979				
1st	251	133	98	[3]99

[1] To U.S. territories. [2] May not add due to rounding. [3] January-February.

January-March imports of frozen cream were smaller than a year earlier but more butter, butterfat mixtures, "ice cream," nonfat dry milk, and chocolate crumb were imported. Casein imports were down almost a fifth and imports of lactose were tiny.

This spring, cheese imports might rebound dramatically if pipeline holdings were substantially below normal at the end of winter. However, if cheese demand grows as slowly as expected this year, 1979 cheese imports (and correspondingly, total imports) probably will not match last year's high level.

Commercial exports of dairy products during January-March were a little larger than a year earlier. Although small, commercial exports posted a 17-percent increase on a milk equivalent basis, with most products sharing in the rise. Food-aid

Table 11— Imports, exports, and shipments of dairy products, 1965-78[1]

Year	Imports		Exports		Shipments[2]	
	Quantity	Percent of production	Quantity	Percent of production	Quantity	Percent of production
	Million pounds	*Percent*	*Million pounds*	*Percent*	*Million pounds*	*Percent*
1965	923	.7	1,836	1.5	522	.4
1966	2,791	2.3	778	.6	430	.4
1967	2,908	2.4	363	.3	461	.4
1968	1,780	1.5	1,185	1.0	586	.5
1969	1,621	1.4	921	.8	498	.4
1970	1,878	1.6	438	.4	548	.5
1971	1,356	1.1	2,458	2.1	568	.5
1972	1,694	1.4	1,469	1.2	677	.6
1973	3,859	3.3	654	.6	638	.6
1974	2,923	2.5	582	.5	576	.5
1975	1,669	1.4	550	.5	496	.4
1976	1,943	1.6	502	.4	520	.4
1977	1,968	1.6	459	.4	527	.4
1978[3]	2,305	1.9	368	.3	602	.5

[1] Milk equivalent, fat solids basis. [2] To U.S. territories. [3] Preliminary.

Table 10--Dairy Products: U.S. imports, quota and non-quota, total 1978, and January-March, 1978-79 1/

Products	Calendar year quota	1978 imports	March			Cumulative, January-March		
			1978	1979	1979 as a % of 1978	1978	1979	1979 as a % of 1978
	Thous lb.	Thou. lb.	Thou. lb.	Thou. lb.	Pct.	Thou. lb.	Thou. lb.	Pct.
Cheese, quota types								
American-Cheddar	10,037.5	10,748	144	463	322	2,350	2,342	100
-Other	6,096.6	7,037	44	608	5/	612	938	153
Italian-Original loaves	11,500.1	8,994	1,174	759	65	1,978	1,741	88
-Other	1,494.0	1,317	192	130	68	290	332	114
Edam and Gouda-Natural	9,200.4	8,601	600	304	51	1,162	563	48
-Processed	3,151.0	3,079	2	8	400	52	10	19
Blue Mold	5,017.0	5,505	214	126	59	1,073	293	27
Swiss-Emmenthaler 2/	20,420.0	14,032	597	470	79	2,156	2,043	95
-Gruyere-process 2/	11,242.0	10,607	227	336	148	927	654	71
Other-Over 0.5% fat 2/	40,730.0	38,374	967	466	48	2,028	4,392	217
-Under 0.5% fat 2/	8,901.0	2,457	42	39	93	42	42	100
Total	127,789.6	110,752	4,202	3,709	88	12,670	13,350	105
Cheese, non-quota types								
Swiss-Emmenthaler		59,647	5,557	3,316	60	15,254	7,013	46
-Gruyere-process		8,329	705	229	32	1,660	621	37
Other		39,899	3,103	2,472	80	8,750	6,026	69
Pecorino		20,288	2,692	1,020	38	6,053	2,732	45
Roquefort		1,471	325	35	11	551	111	20
Other 3/		1,800	138	45	33	370	179	48
Total		131,434	12,520	7,116	57	32,638	16,681	51
Other quota products								
Butter	707.0	736	12	82	683	133	141	106
Butteroil	1,200.0	1,200	---	---	---	1,200	1,200	100
Butterfat mixtures	2,580.0	4/ 2,757	229	296	129	229	335	146
Ice cream	3,377.3	4/ 4,360	208	---	---	208	1,911	919
Frozen cream	12,540.0	4/14,586	748	2,334	312	9,435	6,369	68
Nonfat dry milk	1,807.0	4/ 2,388	---	102	---	711	973	137
Dried buttermilk	496.0	478	---	---	---	122	---	---
Evaporated milk	1,312.0	---	---	---	---	---	---	---
Condensed milk	4,079.0	887	23	8	35	291	156	54
Chocolate crumb-Regular	17,000.0	8,686	359	1,284	358	1,637	2,675	163
-Lowfat	4,680.0	1,546	80	37	46	120	37	31
Animal feed with milk solids	16,300.0	14,647	333	137	41	1,732	1,709	99
Non-quota products								
Casein		137,134	12,863	8,868	69	44,437	36,478	82
Lactose		3,112	101	102	101	990	240	24
Milk equivalent, fat solids basis total all products	1,305,620	2,305,258	151,891	127,112	84	536,293	383,946	72

1/ Preliminary. 2/ Subject to quota if f.o.b. price is less than "pricebreak" (7 cents above the American cheese support purchase price, rounded to nearest whole cent--$1.13 effective November 2, 1978. 3/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya. 4/ Probable error in reported data. 5/ More than 1,000.

exports of nonfat dry milk were down about a third but exports of corn-soy-milk mixture were larger.

Shipments of dairy products to U.S. Territories in January-February were about the same as a year earlier. Smaller shipments of canned milk, dry whole milk, and cheese were offset by larger shipments of butter.

EC Output Still Growing

Milk production in the European Community (EC) this winter was about 3 percent larger than a year earlier, almost as large as the average rise during 1978. Butter-powder output was up sharply while cheese production was slightly higher than a year earlier. Nonfat dry milk in intervention stocks fell to one-half million metric tons (1.1 billion pounds) by the end of March, the lowest level since 1975. Powder use (primarily as animal feed) has been stimulated by a variety of subsidy programs. On the other hand, intervention stocks of butter at the end of March were almost 300,000 metric tons (over 0.6 billion pounds), almost twice the level of a year earlier. Despite the extensive use of subsidy programs to increase domestic and foreign consumption of EC dairy products, the EC has had chronic stock problems because of the rising milk output.

Elsewhere in Western Europe, winter milk output also ran higher than a year earlier. The major exception was Austria, which made substantial changes in dairy policy during 1978. Generally, cheese production absorbed most of the increase in milk output but the pattern varied sharply among countries. Canadian milk output expanded substantially this winter.

In early 1979, New Zealand experienced a repeat of the drought that caused milk output to plummet a year earlier. However, production for the first 7 months of their season (June-December) was only 2 percent less than either a year earlier or the record 1976-77 season. Australia's milk production in early 1979 was close to a year earlier. In both countries, cheese production was relatively stronger than butter-powder output.

Table 12.--U.S. Dairy Situation at a Glance

Item	Unit or base period	1977	1978					1979		
		April	Feb.	Mar.	Apr.	May	Year	Feb.	Mar.	Apr.
Production and cow numbers:										
Total milk	Mil. lb.	10,725	9,287	10,523	10,631	11,178	121,928	9,379	10,555	10,609
Milk per cow	Lb.	976	852	967	980	1,033	11,240	867	979	987
Number of milk cows	Thou.	10,992	10,903	10,887	10,844	10,824	10,848	10,819	10,779	10,748
Prices received by farmers:										
All milk, sold to plants, 100 pounds	Dol.	9.44	10.20	10.20	10.10	10.00	10.58	11.90	11.80	11.60
Percentage of parity 1/	Pct.	74	72	73	74	80	75	75	74	74
Manufacturing grade milk, 100 pounds	Dol.	8.66	9.18	9.23	9.28	9.27	9.68	10.80	10.80	10.80
Parity equivalent	Dol.	11.01	11.64	11.81	11.98	12.07	12.09	13.57	13.85	14.01
Fat content	Pct.	3.62	3.74	3.70	3.65	3.59	3.68	3.78	3.72	3.67
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol.	8.60	9.00	9.09	9.24	9.24	9.57	10.52	10.59	10.63
Milk eligible for fluid market, 100 pounds	Dol.	9.63	10.50	10.40	10.30	10.20	10.79	12.10	12.00	11.80
Price ratios and dairy ration values:										
Milk-feed 2/	Lb.	1.28	1.52	1.51	1.47	1.47	1.53	1.59	1.58	1.56
Manufacturing grade milk-hog	Lb.	.24	.19	.20	.21	.19	.21	.20	.22	.24
Manufacturing grade milk-beef cattle	Lb.	.25	.23	.21	.20	.18	.20	.17	.15	.15
Value of concentrate ration fed milk cows	Dol.	6.62	5.91	6.00	6.14	6.16	6.07	---	---	6.51
Farm cash receipts from dairy products	Mil. dol.	---	Revised monthly data not available ---				12,722	1,084	1,243	
Production of factory products:										
Butter	Mil. lb.	99.9	95.7	97.7	98.5	96.7	999.0	86.6	89.3	
American cheese, whole milk	Mil. lb.	194.4	154.3	182.9	190.8	208.2	2,093.6	166.0	185.3	
Cheese, other than American	Mil. lb.	110.2	106.3	128.9	115.4	120.5	1,423.0	110.1	137.7	
Canned milk, unskimmed	Mil. lb.	82.2	52.1	67.3	68.9	82.4	777.2	56.8	63.0	
Dry whole milk	Mil. lb.	6.3	4.5	7.1	7.4	8.0	72.8	5.8	8.0	
Frozen products 3/	Mil. gal.	98.0	75.5	98.6	95.2	108.2	1,159.6	76.9	99.3	
Creamed cottage cheese	Mil. lb.	75.7	67.9	80.4	75.5	81.1	875.0	65.5	79.9	
Total whole milk equivalent 4/	Mil. lb.	6,035	5,093	5,871	5,903	6,299	64,910	5,016	5,748	
Nonfat dry milk, human use	Mil. lb.	105.9	70.6	84.4	96.4	103.0	928.8	54.9	76.1	
Wholesale prices:										
Butter, Grade A, Chicago	Ct.	100.1	100.7	101.2	105.2	106.7	109.8	111.3	114.1	120.7
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct.	97.9	100.8	101.4	102.6	102.6	107.1	118.6	119.7	121.2
Evaporated milk, case	Dol.	14.91	15.46	15.46	16.09	16.29	16.20	17.36	17.48	17.49
Dry whole milk, pound	Ct.	79.5	84.8	85.4	86.4	86.6	89.8	98.1	97.7	
Nonfat dry milk, pound	Ct.	65.6	68.0	68.0	70.5	71.1	71.4	76.6	77.2	
Dairy products and ice cream index (BLS)	1967=100	173.6	178.7	180.3	184.5	184.5	188.4	203.1	204.8	207.0
Retail prices (BLS):										
Consumer price index 5/	1967=100	179.6	188.4	189.8	191.5	193.3	195.4	207.1	209.1	
All food 5/	1967=100	190.9	202.0	204.2	207.5	210.3	211.4	228.2	230.4	
All dairy products 5/	1967=100	171.4	178.8	179.3	181.6	183.5	185.6	200.6	201.5	
Fluid milk and cream	12/77=100	---	101.0	101.4	102.7	103.7	104.8	113.5	113.8	
Whole milk	1967=100	161.4	165.5	166.3	168.3	170.1	171.7	186.0	186.5	
Other	12/77=100	---	100.7	100.7	102.3	103.2	104.5	113.2	113.6	
Manufactured dairy products	12/77=100	---	101.1	101.3	102.6	103.7	105.0	113.2	114.0	
Butter	1967=100	157.0	169.3	170.3	173.3	174.4	179.4	193.3	194.5	
Cheese	12/77=100	---	101.2	101.3	102.5	103.2	104.8	113.9	114.6	
Frozen desserts	12/77=100	---	100.7	100.9	102.1	104.7	104.7	112.7	113.4	
Other	12/77=100	---	101.6	102.1	102.9	103.1	104.4	110.2	111.0	
Margarine	1967=100	193.7	214.8	214.9	221.6	226.7	226.1	235.2	235.5	
Stocks, end of month:										
Creamery butter	Mil. lb.	128.2	215.9	235.8	246.2	264.6	---	214.7	207.3	
Cheese, total 6/	Mil. lb.	510.4	453.4	439.6	457.1	478.2	---	457.9	447.2	
Canned milk, unskimmed	Mil. lb.	66.4	52.9	52.1	57.4	79.5	---	56.4	49.6	
Dry whole milk	Mil. lb.	10.0	5.4	6.1	7.3	8.4	---	4.6	4.3	
Total whole milk equivalent 7/	Mil. lb.	7,708	8,891	9,165	9,564	10,206	---	8,868	8,598	
Nonfat dry milk	Mil. lb.	522.0	681.5	662.1	686.6	688.1	---	549.0	524.0	
Commercial disappearance:										
Creamery butter	Mil. lb.	65.0	65.9	92.0	80.5	60.1	908.2	78.3	88.5	
Cheese, American	Mil. lb.	163.5	171.3	190.6	170.5	184.6	2,084.1	157.7	188.5	
Cheese, other than American	Mil. lb.	121.8	119.5	144.6	125.8	131.3	1,633.0	113.1	148.8	
Canned milk, unskimmed	Mil. lb.	77.9	57.6	66.8	61.8	59.1	765.4	64.9	68.5	
Milk in all products	Mil. lb.	9,560	8,795	10,388	9,916	10,006	119,277	9,009	10,489	
Nonfat dry milk	Mil. lb.	39.4	54.2	77.9	39.3	43.7	666.8	50.6	65.0	
USDA net removals:										
Butter	Mil. lb.	25.9	26.7	2.1	24.4	34.6	112.0	2.0	---	13.6
Cheddar cheese	Mil. lb.	6.6	.3	-.4	1.8	6.0	39.7	-.3	---	---
Nonfat dry milk	Mil. lb.	37.3	22.6	12.1	27.6	51.5	285.0	1.1	.8	21.3
Evaporated milk	Mil. lb.	1.0	1.3	1.2	1.9	1.2	17.6	1.6	1.2	1.9
Total whole milk equivalent	Mil. lb.	602	557	43	525	777	2,743	41	3	285
Fluid sales, change from year earlier: 8/										
Whole milk	Pct.	-4.3	-1.2	-3.3	-1.6	-2.5	-2.2	-2.8	-1.7	
Low-fat and skim milk	Pct.	+5.0	+6.1	+3.5	+8.8	+6.0	+4.8	+5.2	+5.3	
Total fluid milk	Pct.	-1.0	+1.5	-.8	+2.0	+.6	+.2	+.3	+1.1	
Cream and cream mixtures	Pct.	-3.9	-1.8	+2.8	-10.2	+1.8	-1.5	-.6	N.A.	

1/ Seasonally adjusted price as percentage of parity price.
2/ Different series than formerly published.
3/ Ice cream, ice milk, and sherbet.
4/ Includes manufactured products for which current monthly series are available.
5/ For all urban consumers starting January 1978.
6/ Natural, plus process American cheese held by CCC.
7/ Excludes cream and bulk condensed milk.
8/ Daily average sales in Federal and State Marketing areas.

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*U.S. GOVERNMENT PRINTING OFFICE : 1979 0-280-934/ESCS-112

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

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